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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BELLO, AGUSTIN

ART UNIT PAPER NUMBER

2633

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,465

Applicant(s)

PHILLIPS ET AL.

Examiner

Agustin Bello

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 21, 24-36 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 21, 24-36 and 38-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-12, 18, 21, 24-26, 30-36, and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams (U.S. Patent No. 5,880,864).

Regarding claims 1, 18, and 30, Williams teaches receiving downstream voice video and data communications in a headend (CO in Figure 1); receiving into a user gateway (reference numeral 102 in Figure 1) located in a Customer Premise, upstream voice video and data communications from customer premise equipment; and providing the downstream voice video and data communications from the headend to the user gateway at a synchronous optical network (SONET) transmission rate (e.g. OC-12 in Figure 7); and providing the upstream voice video and data communications from the user gateway to the headend at the SONET transmission rate (e.g. OC-12 in Figure 7), wherein providing upstream and downstream video communications includes using an MPEG format (column 7 lines 47-65; column 9 lines 27-37), an internet protocol (e.g. SONET, Ethernet 10 Base T in Figure 1), and time division multiplexing (inherent in the SONET protocol).

Regarding claim 2, Williams teaches providing over an optical communication link (reference numeral 104 in Figure 1) an optical carrier transmission including the downstream voice video and data communications from the headend to an optical to electrical conversion node (reference numeral 101, 102 in Figure 1; Figure 8A); in the optical to electrical conversion

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node, converting the optical carrier transmission into an electrical equivalent transmission (e.g. DS-1 in Figure 8A); and in the optical to electrical conversion node, providing the electrical equivalent transmission to the user gateway (as seen in Figure 1).

Regarding claim 3, Williams teaches in the user gateway, providing the electrical equivalent of the optical carrier transmission including the upstream voice video and data communications to the optical to electrical conversion node (reference numeral 101, 102 in Figure 1); in the optical to electrical conversion node, converting the electrical equivalent of the optical carrier transmission rate to the optical carrier transmission rate (e.g. OC-12); and in the optical to electrical conversion node, providing the optical carrier transmission to the headend (as seen in Figure 1).

Regarding claims 4, 19, and 31, Williams teaches providing the downstream voice video and data communications using an asynchronous transfer mode protocol (Figure 6, 7, and 8A), and providing the upstream voice video and data communications from the user gateway to the headend using the asynchronous transfer mode protocol (Figure 6, 7, and 8A).

Regarding claims 5 and 32, Williams teaches providing the downstream voice video and data communications from the headend to the user gateway using an internet protocol (e.g. SONET, Ethernet 10 Base T in Figure 1); and providing the upstream voice video and data communications from the user gateway to the headend using the internet protocol (e.g. SONET, Ethernet 10 Base T in Figure 1).

Regarding claims 6, 21, Williams teaches compressing the upstream video communications using an MPEG format (column 7 lines 47-65; column 9 lines 27-37); and

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compressing the downstream video communications using the MPEG format (column 7 lines 47-65; column 9 lines 27-37).

Regarding claims 8 and 36, Williams teaches providing the downstream voice video and data communications from the headend to the user gateway using time division multiplexing (inherent in the SONET protocol), and providing the upstream voice video and data communications from the user gateway to the headend using time division multiplexing (inherent in the SONET protocol).

Regarding claims 9 and 24, Williams teaches OC-12 (Figure 8A)

Regarding claim 10, 25, and 33, Williams teaches STS-12 (e.g. the electrical equivalent inherent from the conversion of the optical signal from optical to electrical).

Regarding claim 11, 26, and 34, Williams teaches the electrical equivalent of the optical carrier transmission rate is a synchronous transfer module transmission (e.g. the electrical equivalent inherent from the conversion of the optical signal from optical to electrical).

Regarding claim 12, Williams teaches receiving a video request for a video transmission from a video device connected to the user gateway; receiving a data request for a data transmission from a data device connected to the user gateway; and receiving upstream voice communications from a call device connected to the user gateway (column 13 line 46 – column 14 line 37).

Regarding claims 38-40, Williams teaches a computer, a television and a telephone (Figure 1; column 13 line 46 – column 14 line 37).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 13-17, 27-29, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams.

Regarding claims 7 and 35, Williams differs from the claimed invention in that Williams fails to specifically teach providing the downstream voice video and data communications from the headend to the user gateway using code division multiplexing, and providing the upstream voice video and data communications from the user gateway to the headend using code division multiplexing. However, code division multiplexing is very well known in the art and Official Notice is taken that it is well known in the art of optical communication. One skilled in the art would have been motivated to employ code division multiplexing in the device of Williams in order multiple signal streams to be transmitted simultaneously. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to employ code division multiplexing in the device of Williams.

Regarding claims 13, 14, 27, 28, and 29, Williams differs from the claimed invention in that Williams fails to specifically teach providing request to the headend and processing requests at the headend. However, this type of request provision and processing is well known in the art. Williams discloses that it is well known in the art (column 2 lines 24-43). One skilled in the art would have been motivated to employ this type of request and process scheme in order to allow

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for the dynamic allocation of bandwidth from the headend. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to employ the request and processing scheme if desired by one skilled in the art.

Regarding claims 15-17, Williams appears to teach that in the user gateway, providing the requested video transmission directly to the video device, wherein the video device is configured to display the requested video transmission to the user, in the user gateway, providing the requested data transmission directly to the data device, wherein the data device is configured to display the requested data transmission to the user, and exchanging the upstream and downstream voice communications directly between the user gateway and the call device.

Response to Arguments

5. Applicant's arguments filed 8/17/05 have been fully considered but they are not persuasive. The applicant argues that Williams fails to specifically teach SONET transmission using ATM, IP, MPEG, CDM, TDM or a combination thereof. However, the examiner disagrees. As noted in the previous rejections of claims 19-23, Williams teaches at least one of these protocols.

Furthermore, the applicants demand for proof that a technology combining SONET and code division multiplexing is met in the form of patents to Taylor (U.S. Patent No. 6,684,030), Chen (U.S. Patent No. 5,841,776) and Chen (U.S. Patent No. 6,928,080), each of which show that the cited technology is well known in the art.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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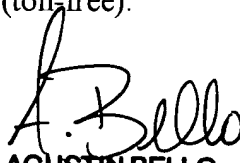
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


AGUSTIN BELLO
PRIMARY EXAMINER